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ABSTRACT

This monograph argues that the case method of instruction, used effectively in legal and medical education, offers unique potential for revitalizing the field of teacher education. A description of the use of the case method in two different teaching sessions demonstrates how the method can exemplify the way a teacher frames and solves a dilemma and encourage students to diagnose, justify, and reflect on alternative action plans. In arguing the potential of the case method, several key questions are addressed: (1) What is meant by the "case method," and what purposes has the case method served in other professional fields? (2) How do the capabilities of the case method match up with the necessary components of the teacher education curriculum? and (3) If the case for cases in teacher education is compelling--as this monograph argues that it is--what will it take to move ahead and build the case method into existing teacher education curriculum and instruction? For institutions recognizing education as a professional field, the case method of instruction offers one effective pedagogical method by which to operationalize this belief. (JD)

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THE CASE FOR CASES

IN TEACHER EDUCATION

by
KATHERINE K.
MERSETH

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THE CASE FOR CASES IN TEACHER EDUCATION

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American Association for Higher Education
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FOREWORD

In 1986, the Carnegie Forum on Education and the Economy issued a report entitled *A Nation Prepared: Teachers for the 21st Century.* The report helped launch a "second wave" of school reform and inspired many follow-up ventures. One was the Presidents' Forum on Teaching as a Profession, a project based at the American Association for Higher Education; another was Project 30, a project that brought together faculty in the arts and sciences and those in education to recast programs for preparing teachers, sponsored in part by the American Association of Colleges for Teacher Education.

Both projects were designed to enlist campus faculty and administrators in the effort to uplift the quality and status of the teaching profession. The second task was to devise road maps that campus leaders can follow in pursuit of these ends.

This monograph is one such map. Its genesis, we believe, is telling. The Presidents' Forum and Project 30 started by looking for routes that would bring the entire campus to new understandings of how complex—and, thus, how challenging as a field of professional study—teaching really is. We were influenced by Lee Shulman's powerful notion that teaching should be studied in the context of what is being taught to whom. The road to a richer view of teaching, it seemed, might lie in shifting the focus from the general to the particular.

Meanwhile, we noted that *A Nation Prepared* recommended that programs of teacher preparation should pay more attention to the case method of instruction—a method well developed in law and business, but relatively unused in teacher education. While there have been proponents of the case method in teacher education for more than a half century, it is not widely used. But on reading Shulman's research, we saw that the case method could be a potent vehicle for getting faculty to consider their teaching responsibilities in a more

systematic and comprehensive manner.

By happy coincidence, Katherine Merseth, who had been coordinating the work of the Presidents' Forum, had a strong interest in the case method. At a meeting of the American Association of Colleges for Teacher Education, Katherine and Judy Shulman, of the Far West Laboratory, hatched an idea for a retreat that would bring together scholars and practitioners of the case method in various fields to explore the promise and pitfalls of introducing cases into teacher education. The retreat was held in November 1989, in Oakland, California, a truly catalytic event that has stimulated work along many different fronts.

With this retreat as a point of departure, we asked Katherine to develop a monograph that would make "the case for cases" in teacher education. What we wanted was not only a document aimed at her professional colleagues, but also one that an education dean might use in a conversation with arts and science colleagues or a provost—a piece that would set a context, raise issues, and make an argument; one that would put the case method in its strongest light, not as an add-on or a nice idea to enrich teacher education, but as a central strategy for convening faculty and public school teachers to consider the revitalization of the teaching profession. We believe Dr. Merseth has succeeded admirably.

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October 1990

The Case for Cases

"Why do you think the fight occurred? What can you tell about Mr. Wedman's concept of the community?" Judith Kleinfeld is leading a group of teacher education students in a discussion of "Malaise of the Spirit," a case she has written about the problems of a veteran teacher, Mr. Wedman, teaching English in a remote Alaskan village. A professor of education at the University of Alaska-Fairbanks, Kleinfeld focuses the attention of the teachers-to-be on two incidents involving Wedman: the first, a fight that breaks out in the classroom between two boys, an Eskimo and a Caucasian; the second, a "lost weekend" during which Wedman begins to question what he is doing. Kleinfeld calls on the students to examine these incidents, to look beneath "the facts" in order to understand how various principles have played themselves out—and why.

Some 5,000 miles away in New York City, Rita Silverman, a professor at Pace University, leads her teacher education students in discussion of a quite different case. In "The Dethroned Section Leader," Bea Benedict, a young, graduate student instructor, faces a classroom revolt that raises questions about her style of leadership.[1] Accusing her of being domineering and uninspiring, one of Benedict's students calls for a vote to oust her. Silverman, turning to one of the aspiring teachers in the seminar, announces, "OK, you're Bea Benedict. What would *you* do?" The group talks about options, actions, consequences...

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[1] Readers interested in obtaining copies of "Malaise of the Spirit" should contact Prof. Judith Kleinfeld, College of Rural Alaska, University of Alaska, Fairbanks, AK 99775. "The Dethroned Section Leader" can be ordered from The Harvard Business School, Publishing Division, Operations Department, Boston, MA 02163.

thankful, all the while, that they're not Bea Benedict.

The discussions of "Malaise" and "The Dethroned Section Leader" occurred in programs that train some of the 125,000 teachers entering American elementary and secondary schools each year. Their use reflects a new interest in cases designed to educate teachers; the differences between them bring to light alternative ways of thinking about the character and role of cases in such programs.

Some of those differences are self-evident. "Malaise of the Spirit" is thirty-five pages in length and reads almost like a novella, with a beginning, middle, and end, rich in detail and full of introspection by the "protagonist," Mr. Wedman. In contrast, "The Dethroned Section Leader" is a scant four pages, a bare bones situation, all facts, no analysis. It's a story without an ending.

Deeper differences pertain to purposes. Kleinfeld's intention in her case is to offer novice students "a *model* of how an expert teacher goes about framing and constructing educational problems—to show students that educational problems are constructed; they are not givens" (1988, 4). She uses the case as an instance of exemplary practice to show that problem framing is a creative act, an act of professional imagination. The task for students who study this case is to examine Wedman's thoughts and deeds, looking for precedents and principles. Their analysis of the case is intended to promote awareness of the contextual influences of school, curriculum, and community on the experience of the teacher.

"The Dethroned Section Leader," on the other hand, carries no presumption that the case itself illustrates either exemplary or ineffective practice. Silverman sees the case as a "patient"—leaving it up to the students to analyze, diagnose, and prescribe. She assumes, as well, that students bring relevant experience, theory, and principles to the task of analysis. While Kleinfeld uses her case to exemplify the way a teacher frames and solves a dilemma, Silverman pushes

students to diagnose, justify, and reflect on alternative action plans.

"Malaise" or "Dethroned Section Leader"... the differences between the two cases raise fundamental questions about how cases might best work in teacher education. Is there a right length? An appropriate form? Should analysis be built in or elicited from the reader? And what about other genres of cases, including ethnographies, autobiographical essays, and excerpts from literature? Which model will come closest to meeting the call for reform that *A Nation Prepared: Teachers for the 21st Century* sets forth:

> An approach to instruction that should be incorporated [in teacher education] . . . is the case method, well developed in law and business, but almost unknown in teaching instruction. Teaching "cases" illustrating a great variety of teaching problems should be developed as a major focus of instruction (Carnegie Commission 1986, 76).

And what of purpose? Are cases best used, as in "Malaise," to help students examine and study exemplary practice and to understand previously identified principles and precedents? Or, is their most appropriate aim, as in "The Dethroned Section Leader," to hone skills of identification and selection of critical factors and the articulation and justification of deliberate action plans? What kind of learning do cases facilitate, and how is that learning related to current thinking about teacher knowledge and expertise?

These questions, it should be noted, are more than matters of style and form, more than the development of a few new materials that might be dropped into existing teacher education curricula. Indeed, to entertain seriously the use of the case method is to confront the most fundamental and challenging issues in the field of teacher education today.

This monograph, then, is offered in response to these questions. It argues that the case method offers unique potential for revitalizing the field of teacher education. And it assumes that for this potential

to be realized several key questions demand consideration:

- What is meant by the "case method," and what purposes has the case method served in other professional fields?
- How do the capabilities of the case method match up with the necessary components of the teacher education curriculum?
- If the case for cases in teacher education is compelling—as this monograph argues that it is—what will it take to move ahead and build the case method into existing teacher education curriculum and instruction?

Coming to Terms With the Case Method: Definitions and Purposes

Mention "cases," "the case method," or "case-based instruction" and one is sure to evoke widely divergent views with regard to the definition, purpose, and use of the terms in education. Faculty in literature might consider a Shakespearean sonnet a particular case of Elizabethan poetry; a mathematics professor might observe that the Konisberg bridges in Austria are a special case of Euler's network theory.

When Lee Shulman, professor of education at Stanford, talks about the case method, he puts particular weight on the word "case," the substance end of the equation. Ever ready with a story to illustrate his views, Shulman recalls Harvard president James Conant who, as a result of his involvement with the Manhattan Project and other endeavors to finance scientific breakthroughs during World War II, was horrified by what politicians and other nonscientists thought scientists could achieve. Political leaders, he concluded, had no conception of what the process of scientific discovery was all about. And so, when he returned to Harvard after the war, Conant wrote *On Understanding Science*, a book of cases—stories really—about various moments of scientific discovery. Cases like these, Shulman suggests, could be used to great effect to teach students about the processes of scientific inquiry. It is, he argues, in the "stuff" of the

case (not whether it is lectured about or discussed) that its instructive power lies.

For Bill Welty, professor of management at Pace University, the case method has a broader meaning. Cases, he argues, cannot and should not be divorced from instruction; process in case-based learning is as important as content. Welty, and others such as C. Roland Christensen, of the Harvard Business School, stress that key to the case method is the discussion itself, through which students "learn to identify actual problems, to recognize the key players and their agendas, and to become aware of those aspects of the situation that contribute to the problem" (Welty et al. 1989, 5).

These views represent, in effect, two emphases within a broader interpretation of the case method; what they share is more important than the relative weight each gives to the component parts. The larger point, then, is that the two elements—cases and the discussion of them—are complementary and that both are important. Discussions that fail to consider what is being discussed for what purpose frequently degenerate into loose talk and opinion swapping. To focus on discussion methods alone, without reference to the material being discussed, is analogous to approaches to teaching that ignore the content that is being taught. Conversely, concern for content alone, without attention to process, denies the reality that how we teach is what we teach. Just as curriculum and instruction must not be treated disjunctively, so must cases and case discussions be considered as one. Process and content are inseparable in the case method.

Conceptually, the case method has its roots in the work of cognitive psychologists and curriculum theorists. For Shulman and Welty, a case-based pedagogy involves what Jerome Bruner calls "narrative" rather than "paradigmatic" knowing (1986). The knowledge in question is not abstract and scientific but embodied in the particular situation under study and in the experiences that discussants bring

to it. A call for this kind of knowledge also underlies Joseph Schwab's work on curriculum:

> The need is for a curriculum which, through and through, requires the competencies of looking, listening, and reading with respect to form and structure, coherence, and cogency. . . . This . . . will mean a shift from the merely lectorial to the discussional, a shift from merely knowing what is said to knowing how it came to be said (1969, 48-49).

The case method of instruction is not a new idea, but rather one that manifests itself in different forms and applications depending upon the nature of knowledge that it seeks to transmit.

Cases and Case Methods in Other Professional Fields

Cases have a notable history in the professions of business, clinical psychology, law, medicine, and public policy. Certainly, teacher education can learn from experience in those fields: As John Dewey noted, "The problem of training teachers is one species of a more general affair—that of training for the professions" (1904, 315). How, then, has the case method been used in other fields?

In each of these professions, the purpose, content, and method of case-based instruction differ. Clearly, the purpose and content of a case bear a significant influence on its use and ultimate impact. Similarly, the method by which the case is discussed shapes the learning that results from it. Two fields with particularly long and yet contrasting traditions of case-based instruction are law and business. An examination of the use of cases in each will provide important information for the consideration of the case method in teacher education.

The purpose of case-based instruction in legal education is to teach legal principles (Kleinfeld 1988). With appellate court decisions as case material, the objective is to offer exemplars of judicial reasoning to help potential lawyers examine and analyze threads of legal precedent. While legal decisions may be clarified, reinterpreted, and sometimes

overturned, once a decision is made it becomes a potential precedent for future decisions; new laws are built on old laws. The result is a profession in which the body of knowledge is clearly established and carefully recorded.

A second important characteristic of legal education concerns its conventions of reasoning and logic. Legal education trains lawyers to reason dispassionately from existing theories or precedents that are knit together by deductive logic. Deductive reasoning, by its nature, downplays personal and subjective factors. In sum, the arguments of law are grounded in precedent using the impartial canons of deductive logic.

The method of discussion of case material in legal education also is distinctive. Made popular (and no doubt exaggerated) by the movie *Paper Chase* is a vision of the law school classroom in which the professor leads students through an established path of questions to a predetermined "right" answer. Kingsfield's questions in the movie are designed to arrive at just such a destination. This form of Socratic dialogue, even in its milder and more real-world version, prevails in many law school classrooms. The purpose of the case method in law, then, is to illuminate specific precedents and particulars as they relate to a predetermined, more general proposition.

The use of cases in business education presents a striking contrast to legal education. Historically, the case method was used in the business curriculum to stimulate analyses, to open discussion, and to determine the action that should be taken. These same purposes are pursued today, but added to them is the objective of helping students learn a method of problem solving as well as specific content. C. Roland Christensen notes that the aim of cases in business education is to train students both to know and to act: "When successful, the case method of instruction produces a manager grounded in theory and abstract knowledge and, more important, able to apply those elements"

(1987, 32). The case method seeks to combine analyses grounded in content knowledge with action to empower the manager to deal with situation-specific dilemmas.

Business cases stress actual problems confronting managers. They are carefully constructed teaching instruments, intended to spur discussion and analysis. Typically presented in narrative form, a case is a distillation of real events and provides readers with the substantive and process data that are essential to the analysis of the situation. Good business cases are complex, often ambiguous, and are based on carefully crafted research designs and field work (Christensen 1987). And while some business cases may build another, they do not, like the law, depend exclusively on precedents.

The discussion method of instruction is also distinctive in business education classrooms. Instead of a Socratic dialogue, case instructors in a business school setting ask questions to guide the discussion—to engage students as vicarious participants and analysts—without a predetermined conclusion in view. Kenneth Andrews describes this tricky role for the instructor:

> He exercises control over an essentially "undirected" activity, but at the same time he keeps out of the way, lest he prevent the class from making discoveries new also to him (1954, 98-99).

Business case instructors must not only manage the content of the discussion; they must also be acutely aware of the process of interaction. In this regard, the method of instruction differs significantly from law school case study.

To summarize, two important characteristics differentiate the use of cases in legal education from their use in business. The first characteristic relates to the existence of a well-defined knowledge base with discernable threads of precedent and deductive logic in legal education. In contrast, a portion of the knowledge base in business always is in flux; as Peter Drucker argues, it must remain in flux

to respond to the ever-changing conditions in the business environment.[2] The second differentiating characteristic is that business education stresses the human condition and the importance of interaction. In particular, the manager must be sensitive to interrelationships and aware of the connectedness of all organizational components, functions, and processes. He or she must:

> recognize that [a specific issue] will always influence and be influenced by the general situation. . . . The manager must consider not only the present circumstance of any issue but also its historical legacy and future perspective. He or she must accept that any problem may well be understood differently by individuals and groups, and that perceptions change (Christensen 1987, 33).

In contrast, the power of deductive reasoning and the lines of precedent render the individual or specific context less compelling in the practice of law.

An important point can be gleaned from this discussion about law and business. To a remarkable extent, the purposes and use of the case method turn on the nature of the body of knowledge that exists in the professional field. The differences between law and business are significant. Looking at teacher education, then, one must ask about the relationship between cases and the knowledge base of teaching

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[2] Fritz Roethlisberger, a Harvard Business School faculty member who studied the case method in the 1940s and 1950s, explained: "a business case differs from a law case. It also differs from a case history as used in medicine and social work. The difference is largely due to the fact that there exists a so-called body of substantive knowledge in law and medicine which does not exist in business. Perhaps to appease some, I should say that a body of knowledge did not exist in business at the time I am writing about; it resembled more a body of opinions (1977, Chapter 9, *Human Relations and Administration, 1938-1948*).

itself. Interestingly, it is the legal model of case-based instruction that has been most frequently referred to by those discussing the case method in teacher education (Barnes 1989; Doyle 1990; Kleinfeld 1988; Shulman 1986; Sykes 1989). Is this, given the nature of teacher knowledge, the best approach?

The Nature of Teacher Knowledge: Where Cases Fit

The close relationship between the nature of cases and the body of knowledge that they aim to represent causes any discussion of case-based instruction in teacher education to confront an epistemological question: How does one characterize the nature of teacher knowledge? What do teachers know, and what are they able to do? There are two contrasting responses to these questions.

On the one hand, some researchers believe that the relationship between teacher actions and student outcomes can be codified, captured, and delivered to teachers (Berliner and Rosenshine 1976; Brophy and Good 1986; Gage 1978). These researchers argue that teachers, at least expert teachers, make decisions in classrooms based on principles and/or scientific theories. Because theories exist to explain teaching situations, the argument goes, the teacher can derive the "right" answer through the application of the appropriate principles and theories. In this characterization, the teacher's primary task is to identify the suitable theory or principle and apply it to the given situation. A description of this conception, as applied to beginning teachers, appears in the prospectus for the book *Knowledge Base for the Beginning Teacher:*

> Knowledgeable teachers are not technicians, but professionals—worthy and able to make decisions and plans based on *principled knowledge* that is adapted to the particulars of their teaching situation (as quoted by Zumwalt 1989, 173, italics added).

The expert teacher, in this portrayal, reasons from a completely codified and consistent body of knowledge. As in the axiomatic set

theory of mathematics, the set of principles that describe teaching is complete and consistent—"complete" in that the axioms cover or "map" all that is known or can be deduced, and "consistent" in that there are no implicit inconsistencies among the axioms. Put simply, the expert teacher needs only a sufficient set of axioms and logical structures, and the ability to apply them deductively.

On the other hand, a different appraisal of teacher knowledge suggests that skillful teachers do not operate from a set of principles or theories, but rather build, through experience in contextualized situations, multiple "scripts" (as Light and Pillemer 1984, call them). These scripts define strategies for practice. In this conceptualization, the teacher does not start with theories or principles, but with multiple experiences that are organized and accessible—but also subject to continual revision and change. In this ill-structured domain, few, if any, nostrums and fewer universal theories hold true. Instead, the teacher uses salient patterns of events (Bolster 1983) to provide a conceptual foundation for strategic decisions. The conceptual task for the teacher in this representation is that of induction, not deduction.

These contrasting interpretations have helped to fuel a long debate and continuing tension in teacher education about the appropriate roles for theory and practice. Historically, the tendency has been to conceptualize theory and practice in separate, dichotomous terms (Florio-Ruane and Clark 1990) and to let theory take precedence. The influence of practice on theory is seen as less legitimate and less respectable (Bolster 1983). One need only look at the exclusion of practitioner voices in educational research to see how completely this view prevails.

While such a dichotomy may be legitimate in certain academic fields (such as pure mathematics, where theory exists without any regard for practice or context), it seems particularly inappropriate in a professional field such as teaching (Dewey 1904). Theory and practice

in teaching must be engaged: Theory informs and influences practice, while practice informs and influences theory. There is (as the old saw says) nothing so practical as good theory; nor is there anything so theoretical as good practice.

Those in the field of teacher education, however, aren't so sure about the interplay of theory and practice. Induction versus deduction, practice versus theory . . . debates and tensions such as these have long dominated conversations about teacher knowledge and education. But viewing teaching in these dichotomous ways is ultimately more illustrative than conclusive. And while there is certainly no single "right" model, a promising sign in recent work is the appearance of a third, more synthetic approach. Clark and Lampert, for instance, call for a conception of knowledge about teaching that goes beyond the polarizing views outlined above:

> Rather than looking to research on teacher thinking to tell us what knowledge teachers should have and use, we can look to it for enlightenment on the question of what kinds of knowledge teachers can use. . . . First we know that teachers need *contextual* knowledge. The decisions they make are situation-specific. . . . [Second] the knowledge . . . is also *interactive*. Teachers ask questions of their students, expect responses, and watch for signs of understanding. . . . Third, . . . teacher knowledge [is] *speculative*. There is a great deal of uncertainty in the teacher's work (1986, 29, italics in original).

What one sees in the work of Lampert, Clark, and others is a move toward a new, more complex view of teacher knowledge and teaching. This research has broadened and deepened the conceptualization of the teacher from that of a narrow transmitter of knowledge to that of an individual interacting and influencing both the context and the learners in multiple ways (Calderhead 1987; Clark and Peterson 1986; Clark and Yinger 1977; Jackson 1968). Knowledge gained in this world is "tentative, subject to change, and transient

rather than fixed, objective, and unchanging (Clark and Lampert 1986, 29).

In a related line of thinking, David Cohen observes that "the causal influences on teaching and learning are many and often impossible to pin down. . . . They can be defined and redefined in different but plausible ways. They overlap. They vary greatly with situations" (personal communication with author, 1990). In such a milieu, multiple hypotheses about teaching compete, none with sufficient strength to defeat any other. The hope of a well-defined, completely codified, and logically consistent knowledge base in this environment is as unfounded as it is unwise.

This new conceptualization of teacher knowledge also recognizes that teaching is a field organized around human interaction under the strong influence of specific contexts. It *does* matter what one is teaching, to whom, under what conditions. Hence, accurate prediction as a result of dispassionate and pure deduction is not likely.

Rather, teaching is seen as an endeavor that functions in situations where neither universal laws nor total chaos prevails, where neither deduction nor induction reigns supreme, and where certain principles in teaching do exist but do not ground every teaching action. Seen in this way, teacher knowledge falls on a new middle ground.

It is here, in this middle ground, that the case for cases is most powerful. To choose cases as a pedagogy is to embrace a belief that while theoretic principles may be important and must be learned by those who teach, simply knowing a principle is of little use. Cases assume that what we need are teachers who are able to apply principles and even to devise new ones (Kennedy 1987; Schon 1987). Drawing from the experience of business education with cases as representations of highly complex, contextualized activities and its discussion method which stresses a shared mode of critical inquiry, the case method embodies this middle ground on the continuum of views about teacher knowledge.

The Case for Cases in Teaching Teachers

It's one thing to say that the case method constitutes a good epistemological fit with conceptions of teacher knowledge; it's quite another to ask what contribution it would make to the knowledge and developing expertise of students in teacher education programs. A suggestive framework for addressing this issue can be found in the work of Mary Kennedy, director of the National Center for Research on Teacher Education at Michigan State University. Kennedy proposes four types of teacher knowledge and expertise:

1. knowledge and the application of technical skills;
2. knowledge and the application of theories, principles, and concepts;
3. the ability to analyze a situation critically and generate multiple interpretations of it; and
4. the ability to formulate deliberate action plans that result from critical analysis.

To acquire the first two forms of expertise, Kennedy argues, is relatively simple. "These two forms of expertise depend on content that can be defined in advance, organized into a curriculum, given to novices, and later applied by them" (Kennedy 1988, 122).

The latter two forms of expertise, critical analysis and deliberate action, however, are more difficult to impart. They are action-oriented and lack specific, predetermined content. "Teachers work in situations where they are expected to accomplish complex and even conflicting goals. Under these circumstances, *a priori* knowledge identified by researchers about the relationship among particular decisions or actions and their outcomes is of limited worth" (Clark and Lampert 1986, 28). Teachers must rely heavily on their ability to analyze and relate this experience to prior knowledge and experience. Describing this matching and critical analysis, Kennedy observes that:

> Rather than finding *the* right principle to apply to each case, critical

> analysts are aware of multiple and sometimes competing principles and concepts that could be applied to the same situations. Their task is to examine *both* the principles *and* the situation (1987, 121, italics in original).

In Kennedy's view, it is from this kind of critical analysis that one comes to "deliberate action." The expertise of deliberate action reflects a recognition of the multiple ways of interpreting a situation—as does critical analysis—but it moves beyond analysis to yield potential actions and their probable consequences. Both forms of expertise require more than knowledge. They require a frame of mind,

> an ability to engage in such analyses; a desire to engage in such analyses and a disposition to continually seek better solutions . . . it requires the *transformation* of the novice into a person who is inclined to critically examine her own practice and to search for ways to improve it (Kennedy 1988, 123, italics in original).

With these forms of expertise, it is important to observe that these skills often must be exercised in contexts where precise matches with prior experiences, training, or theory may not exist. This, according to Schwab, "is essentially the problem of facing the student with 'reality,' that is, of discovering to him the sense and extent to which *real cases are not mere instances of general rules or mere members of classes* (1969, 116, italics added)."

The Case Method of Instruction and Teacher Expertise

Can case methods of instruction effectively foster these forms of expertise needed by teachers? The fact is that we don't know; work with cases in teacher education is obviously at an early stage, with questions about effect and effectiveness yet to be answered. Judging, however, from longer experience in other professional fields, and from some recent work in education, a number of benefits can be expected from the case method. They include the following:

• **Cases help students to develop skills of *critical analysis and problem solving.***

One of the most widely cited advantages of case-based pedagogy in other professional fields is that it is especially effective in helping students develop skills of critical analysis, problem solving, and strategic thinking (Christensen 1987; Kowalski et al. 1990; McNair 1954; H. Pearson 1951; Towl 1969). While the method has been tried only sporadically in professional education, those who have written about these case-based experiences also stress the ability of the method to foster skills of critical analysis. For example, Hunt Pearson in the early 1950s suggested that the method provided

> the power to analyze and to master a tangled circumstance by selecting important factors; the ability to utilize ideas, to test them against facts, and to throw them into fresh combinations . . . for solution of the problem; the ability to recognize the need for new factual material or the need to apply technical skills; the ability to use the latter experiences as a test of validity of the ideas already obtained (1951, 178).

Forty years later, Florio-Ruane and Clark suggest that the aim of critical analysis "is to engender in beginning teachers a sense of the possibilities as well as a sense of what is; an awareness of multiple realities present in [a] classroom, not as 'given' but as 'made'" (1990, 22). Well-designed cases in teacher education can help students to observe closely, make inferences, identify relationships, and formulate organizing principles. Students are asked to see that "educational problems are constructed; they are not givens" (Kleinfeld 1988, 5). Cases send a powerful message that teaching is complex, contextual, and reflexive.

• **Case-based instruction encourages *reflective practice and deliberate action.***

Expert teachers are skilled not only at analysis but at decision making

and action. The use of cases in business education, with its focus on analysis in order to formulate action plans, is particularly suggestive here. Cases like "The Dethroned Section Leader" give students a chance to generate strategic plans and predict consequences and implications.

Interestingly, Joseph Schwab referred to the art of deliberation, suggesting that it involved "the envisaging of alternatives, the weighing of alternatives, and the rehearsal of probable consequences" (1969, 117). In so doing, he prefigures Donald Schon's concept of "reflective practice," which has attracted considerable attention from teacher educators (Grimmett and Erickson 1988; Richert 1990; Tom 1985; Zeichner and Liston 1987). The case method, by allowing students to deliberate and choose among competing interpretations, is a step in the direction of Schon's (and Dewey's) vision of "reflection-in-action," and affords a path for more professional orientation in teacher education programs (Schon 1983).

• **Cases help students *gain familiarity with analysis and action in complex situations* that may not represent a perfect match between theory and practice.**

Teaching is neither generic nor simplistic and therefore needs a medium that represents it accurately. Cases are excellent vehicles to bring "chunks of reality" into the professional classroom (Lawrence 1960). Good cases and skillful instruction work as an antidote to oversimplification, moving students toward greater sensitivity to context and uniqueness. This technique exposes learners to differing interpretations of complex situations and provides them an opportunity to examine and to rehearse the skills required of effective teachers.

An obvious but important advantage of cases in teacher education is their capacity to expose students to settings and contexts that would otherwise be unavailable. There are, quite simply, a limited number of classrooms that can be visited by each student; through cases,

students can experience settings as geographically and culturally diverse as an Eskimo village on the north coast of Alaska and the inner city of Los Angeles (Kleinfeld 1988; Shulman and Colbert 1987).

• **Case-based instruction *involves students in their own learning.***

When asked in discussion of "The Dethroned Section Leader," "What should the instructor do now?" students find it difficult not to have an opinion and become involved in the discussion. In a case-based classroom, the student moves from being a passive receptacle for information (often delivered through lecture) to an active, responsible participant in learning. And though that move is not always an easy one, students find case-based instruction lively and engaging after initial practice with the method.

Moreover, to enter a case discussion, students must bring to bear prior knowledge and experience, as well as more personal feelings, dispositions, and values. These characteristics afford a more thorough integration of self into the developing teacher role because participants articulate and explore their own beliefs and opinions about teaching. Too often, program designers in teacher education have "failed to consider what novices think they already know" (Barnes 1989, 13). As a result, strong preconceived and sometimes inaccurate notions about teaching endure because they are not articulated by the beginners. Cases offer an opportunity to make these views explicit rather than implicit, thus enabling teacher-educators to help beginning teachers explore and reformulate these notions (Feiman-Nemser and Buchmann 1985).

• **The case method promotes *the creation of a community of learners.***

A central element in the recent calls for the restructuring of schools into professional development centers is the need for teachers who

can work together in teams (Holmes Group 1990). Other calls for increased teacher empowerment and shared leadership add to a changing role. The case method stresses dependence on shared problem solving, wherein individuals take responsibility for their own learning and also *contribute significantly to the learning of others.* Developing a familiarity with the intricacies of such an environment before entering the workplace is important for new teachers.

In summary, today's teachers are professionals who use judgment, analysis, and strategic action to untie the "knots" of teaching (Wagner 1984). These challenges often are worked out through teacher experimentation and reflection on the impact of the action. Learning through cases is "up-close learning," where prospective teachers can engage as a team in careful thinking about concrete, complex situations—analyzing, formulating action, predicting consequences, and evaluating those consequences. Cases have a significant contribution to make in the education of such professionals.

Moving Ahead: What Needs to Happen Next?

The case for cases is a compelling one, well grounded in a new, richer conception of teacher knowledge and expertise. But the fact remains that little progress has been made in bringing case-based pedagogy into teacher education curricula. One might well ask: what's the holdup?

An answer is that the call for cases is a radical one. The argument is not that cases are the only appropriate pedagogy for teacher education (they are not, for instance, the most efficient method of conveying preestablished concepts or technical skills). But the view of cases set forth here *is* an argument for their centrality in teacher education pedagogy and curriculum. What's at issue is not an occasional use of cases in this course or that one (though small steps are important at first), but a fundamental overhaul of the thinking about teaching

and the education of teachers.

The implementation of cases represents an ambitious agenda that will require attention and commitment at three levels: from individual faculty, who must tackle and master the use of cases in their classrooms; from institutions, which must support the efforts of case teachers and those who develop the cases; and from the teacher education community, which must assert intellectual leadership and provide strategic and financial resources.

Faculty Resolve

Effective case-method instruction requires extensive, specialized skill on the part of faculty who use the pedagogy. These skills are not innate, nor is their genesis trivial. "Poorly taught, there is no worse method" is how Lee Shulman describes the demands of case-based instruction (cassette recording, 1989). Similarly, Christensen and Zaleznik note that "dealing with concrete situations is a far more complex and demanding task than working with any set of generalizations or theories" (1954, 215).

What does it take? In some ways, case-based instruction constitutes a change in the basic ground rules of higher education. No longer is it enough to know the material well: Case-based instruction demands that instructors be thoroughly familiar with the subject at hand, and that they also understand the characteristics of their learners and the dynamics of group interaction. In essence, effective instructors must prepare not only *the case* but also *to teach the case*. In so doing, they develop a set of teaching objectives and construct careful teaching outlines that include key concepts and related questions for use during the discussion, continually mindful of how to frame and connect the contributions of the students.

Joseph Schwab, commenting on discussion-method teaching, outlined the requirements of this related pedagogy. The teacher, he says, must first

> know the work under analysis through and through. Second, he must be equally familiar with the varieties of questions and attacks which can be made on such a work. . . . Third, he must be alertly and sensitively mindful of what each student is saying and doing, not only in the moment but in the whole course of the discussion (1969, 66).

Cases, then, require that teachers develop a highly refined sense of the integration of content and process.

A related challenge follows. Faculty practitioners of the case method must learn to maintain a delicate balance between involving students and retaining control—a skill for which lecturing (and being lectured to) provides little preparation. Sometimes a discussion needs strict guidance; knowing students and their potential contributions helps the instructor make decisions about the direction of the discussion. At other times, it may be best to let student contributions flow.

Even when discussions are student driven, however, the case leader still exerts a strong influence on the learning process in the classroom through active listening, skillful questioning, and appropriate silences (Welty 1989). In this respect, the role of the effective case discussion leader is much more than a verbal traffic cop: Expert case teachers are leaders at the same time that they are participants in a complex learning process.

These characteristics of case-based instruction place stringent time demands on faculty. One veteran case instructor suggests a "20-20-10" rule: twenty hours of preparation for the first time a case is taught, twenty hours for the second time, and ten for each additional time the case is used. Whatever the correct number (others estimate less time), it is clear that this method requires a different form and degree of preparation than the more traditional lecture format.

Finally, exacerbating the above challenges is the fact that faculty seeking to master the case method will inevitably confront students who prefer "the old way." Learning with cases flies in the face of

students' expectations, developed over years, that the teacher's job is to give them "the answer." At a practical level, learning by cases demands different study habits of students. In lecture classes, students do not necessarily prepare for each class; instead, they read as time permits and exams require. In contrast, case discussions demand considerable daily preparation.

Even more radically, cases demand that students take responsibility for their own learning and for the group's learning. In effective case discussions, students learn from one another as well as from the teacher and the material. Certainly, an important characteristic of case teaching is "to have the students accept and maintain ownership of the discussion. The discussion must be student driven" (Shapiro 1984, 4).

In short, faculty face multiple challenges if case methods are to be successful, acquainting themselves and their students, too, with a new form of learning.

Institutional Context and Commitment

If individual teachers are to implement the case method, they need more than personal resolve and good intentions. They need extrinsic support and deep commitment from their institutions. This is first a question of mission.

Case-based instruction will inevitably bring to the surface long-standing issues about the status of teacher education and where it "fits" in the academy. Is it a discipline? Current reward structures and the reigning conception of academic research pull in that direction. Or is teacher education a profession? The recent recognition of the complexity of practitioner and professional knowledge pulls in this other direction. Defining the balance between academic theory and professional practice will be difficult.

If institutions that educate teachers elect to embrace a mission that includes a recognition of education as a professional field, then the

case method offers an effective pedagogical method by which to operationalize this mission. Cases embody the "wisdom of practice"; they legitimate the knowledge of experience. Even more, the serious adoption of the case method of instruction in teacher education *requires* that institutions adopt a professional perspective. A move toward cases presumes an emphasis on individual judgment and discretion—key elements of professionalism.

Beyond mission, the institutional commitment needs to be expressed in rewards and incentives that recognize the challenges and complexities of teaching effectively by the case method. Without well-articulated rewards, the incentive to try case-based instruction is very low. One instructor, who reflected on the demands of case teaching without a commensurate change in rewards, noted:

> In light of the magnitude of these tasks, the prospective case instructor will quite legitimately ask, "Is it worth the effort?" If he considers only the institutional rewards, he may well conclude that it is not (Pitts 1975, 12).

What might the reward and support mechanisms for case-based teaching look like? One possibility is that the institution would provide occasions to explore the use of cases. At Harvard, for example, C. Roland Christensen offers a series of faculty seminars on case-method teaching. Long a student of the case method, Christensen has spent nearly two decades researching, analyzing, and teaching about cases and case methods. He currently leads seminars on teaching by the case method and on developing discussion leadership skills for faculty and doctoral students throughout the university. Outlines of the material covered in these courses are available in his book *Teaching and the Case Method* (1987).

Another supportive activity involves the creation of teaching groups where instructors of the same material or course can meet regularly to discuss specific teaching questions and ideas. It is within these settings

that dilemmas and challenges peculiar to case-based instruction—such as course conceptualization and pace, the integration of cases with other materials, and assessment—can be tackled.

Beyond particular activities, however, institutional support must translate into systems of promotion and tenure. The obvious point is that cases will not succeed in institutions that do not value and reward good teaching. This, in turn, implies more sophisticated and subtle forms of evaluating teaching. It also suggests that the typical emphasis on research (to the diminution of teaching) in the higher education reward and promotion process compels reexamination. Research and teaching can no longer be engaged in a zero-sum game, like two children on a teeter-totter with one up while the other is down. Both must be seen as critically important to the success of the academy.

The Teacher Education Community

The success of faculty in implementing the case method on individual campuses depends in large part on the commitment of the larger teacher education community. Activities in two key areas will determine the depth of this commitment: the provision of case materials and the training of instructors.

Teacher education case materials, where they exist at all, are uneven in quality. Cases take multiple forms, including real and imaginary scenarios, critical incidents, case studies, vignettes and other anecdotes of practice (see Broudy, Tozer, and Trent 1986; Cruickshank 1985; Greenwood, Good, and Siegel 1971; Greenwood and Parkay 1989; Kohut and Range 1986; Shuman 1989; Sperle 1933). More recently, a number of new casebooks have appeared in the marketplace. Some have specific audiences in mind, such as beginning teachers or special-education classrooms; others focus more broadly on events that teachers commonly encounter (e.g., Kowalski et al. 1990; Shulman and Colbert 1987, 1988; Welty and Silverman 1990).

Unfortunately, much of what historically has been available as case material in teacher education lacks both the depth and substance to enhance the development of teacher expertise in critical analysis and deliberate action. If cases are to make their full contribution to teacher education, the profession must forge a more unified front, with a more coherent intellectual framework with respect to these materials.

The paucity of high-quality case materials is due to four interrelated causes: first, a lack of clarity about what constitutes a "good" case; second, very few opportunities to learn the techniques of case development and writing; third, the cost of developing effective case materials; and fourth, the absence of any formal, centralized mechanism to make existing materials accessible.

Differing interpretations of what constitutes an effective teaching case have led to an uneven and limited collection of materials in teacher education. Good cases that teach skills of critical analysis and deliberate action are the result of actual teaching experience. Fictional scenarios, manufactured vignettes, and hypothetical incidents are unlikely to impart the imperative of reality. Effective cases also are sufficiently detailed, complex, and substantive to foster multiple levels of discussion, analysis, and possible courses of action. Short, vignette-like cases (of which there are a growing number) may be helpful in illuminating a single issue, but rarely do classroom issues present themselves in such tidy packages. More work, certainly, lies ahead in clarifying the characteristics of useful cases and how various types of cases may be suited to different purposes and audiences.

The second reason for the existing deficiency is the lack of opportunities for educators to learn and explore the process of effective case development and procedures for integrating new cases in curricula. Literature on case writing in business education offers a starting point for teacher educators as they begin to explore the process (Lawrence 1960; Leenders and Erskine 1978; Towl 1969). This literature includes

specific suggestions relating to case origin, establishing leads, data collection, writing protocols (including voice and length), confidentiality, and release procedures.

The complexity of writing an effective case creates the third constraint—one of cost. In instances where an experienced case writer enters an unfamiliar setting to conduct research and write a case, it is reasonable to envision three to five weeks of full-time work. Depending on the scope of the assigned case, the research and writing costs of developing a case may be significant—even prohibitive. In addition, the effort to develop case leads, supervise and negotiate revisions, and obtain permission to use the materials represents new responsibilities for faculty.

Finally, the fourth factor that inhibits the production and procurement of materials is the absence of any central source or publication where cases are collected and made available to the entire teaching community. While a growing number of teacher-educators are exploring case-method instruction and developing their own materials and curricula, no formal mechanism or publication exists to capture these successes and make them widely available. One valuable effort would be the initiation of a journal or a section of a journal that would include teaching cases similar to that found in the *Journal of Management and Policy Analysis*.

Eventually, the creation of a case clearinghouse would represent another beneficial activity. The creation of such an institution at this time is premature because there are very few cases to "clear." However, when a larger number of high-quality cases do become available, the experience of colleagues who have established case clearinghouses in other professional fields will serve educators well. A successful clearinghouse must have consistent, well-articulated criteria for acceptance into the collection, and a thoughtful categorization system that will encourage access and use.

With regard to training, case-method teachers will benefit from intensive workshops or seminars for education faculty, and from increased writing by faculty about experiences using cases (Kleinfeld 1988; Lyons 1989; Sykes 1989). Summer case-method institutes or preconference sessions at professional meetings could be offered by institutions, centers, or professional organizations. In these seminars, new case instructors might study available teaching notes or observe more experienced colleagues teach cases. Leaders for these seminars could be recruited from those who already use the pedagogy in education, as well as those in other fields who are particularly thoughtful about the method and materials.

Back on campus, experience and reflection are the best tools to cultivate skills in case-method instruction. Activities such as video taping, peer observation, or establishing a teaching discussion group among faculty are critical to the professional growth and expertise of case instructors.

In the longer term, work related to materials development and instructor training will bring the profession to crucial research and evaluation questions surrounding the use of cases and case-based instruction. Rich lines of research await exploration about what it means to learn from cases and the impact of various case genres and teaching approaches on learning outcomes.

In addition, important curricular issues centering on when and where to use cases effectively in the teacher education curriculum beg for examination (Lyons 1989; Sykes 1989). Initial questions might consider the relative effectiveness of the case approach in informing beginners about classroom realities (Florio-Ruane 1990; Kleinfeld 1988), or as an "enhancer of experience" (Wilson 1989), or developer of analytic skills. Indeed, the development of cases and their use in the classroom calls for a new conceptualization of research itself—and yet another step toward the professionalization of teaching.

Summary For institutions that recognize education as a professional field, the case method of instruction offers one effective pedagogical method by which to operationalize this belief. This approach affords an avenue for the world of practice and a professional orientation to teaching to assume a legitimate place in the educative process. The most powerful case for cases in teacher education is that they embody and help to explore an important new conception of teacher knowledge. This pedagogy has the potential to serve as a transformative force in the revitalization of the teacher education curriculum.

Case-method instruction is not for the faint hearted or the trendy. The successful adoption of the case method in the education of teachers will take skillful planning, hard work, and courage. Those institutions with clearly articulated and deeply held commitments to teaching and to the professional education of teachers will have the greatest success in implementing case-based instruction. Certainly some serious implementation, curricular, empirical research, and evaluation questions lie before the teacher education professoriate, but opportunity awaits. ■

BIBLIOGRAPHY

Andrews, K. 1954. The role of the instructor in the case method. In *The case method at the Harvard Business School*, ed. M. P. McNair. New York: McGraw-Hill.

Atkin, M. 1989. Can educational research keep pace with educational reform? *Phi Delta Kappan* 71(3): 200-206.

Barnes, H. 1989. Structuring knowledge for beginning teaching. In *Knowledge base for the beginning teacher*, ed. M. Reynolds. New York: Pergamon Press.

Bellack, A. 1978. Competing ideologies in research on teaching. *Uppsala Reports on Education* 1: 1-42.

Berliner, D., and B. Rosenshine. 1976. *The acquisition of knowledge in the classroom*. San Francisco: Far West Laboratory.

Bok, D. 1979. *The president's report, 1977-1978*. Cambridge: Office of the President, Harvard University.

Bolster, A. 1983. Toward a more effective model of research on teaching. *Harvard Educational Review* 55(3): 294-310.

Brophy, J., and T. Good. 1986. Teacher behaviors and student achievement. In *Handbook of research on teaching*. 3rd ed. ed. M. C. Wittrock. New York: Macmillan.

Broudy, H., S. Tozer, and W. Trent. 1986. *The Illinois project on professional knowledge in teacher education: A pilot study of core problems in teaching*. Technical report. Champaign, Ill.: University of Illinois College of Education.

Bruner, J. 1986. *Actual minds, possible worlds*. Cambridge: Harvard University Press.

Calderhead, J. 1987. *Exploring teachers' thinking*. London: Cassel Educational Limited.

Carnegie Commission. 1986. *A nation prepared: Teachers for the 21st century*. New York: Carnegie Forum on Education and the Economy.

Cazden, C. 1986. Classroom discourse. In *Handbook of research on teaching*. 3rd ed. ed. M. C. Wittrock. New York: Macmillan.

Christensen, C. R. 1987. *Teaching and the case method.* Boston: Harvard Business School Case Services, Publishing Division.

_____. 1981. *Teaching by the case method.* Boston: Harvard Business School Case Services, Harvard Business School.

_____, and A. Zaleznik. 1954. The case method and its administrative environment. In *The case method at the Harvard Business School,* ed. M. P. McNair. New York: McGraw-Hill.

Clark, C., and M. Lampert. 1986. The study of teacher thinking: Implications for teacher education. *Journal of Teacher Education* 37(5): 27-31.

Clark, C., and P. Peterson. 1986. Teachers' cognitions. In *Handbook of research on teaching.* 3rd ed. ed. M. C. Wittrock, 225-296. New York: Macmillan.

Clark, C., and R. Yinger. 1977. Research on teacher thinking. *Curriculum Inquiry* 7(4): 279-394.

Clifford, G., and J. Guthrie. 1988. *Ed school: A brief for professional education.* Chicago: University of Chicago Press.

Cohen, D. Personal communication with author. January 1990.

Coles, R. 1989. *The call of stories.* Boston: Houghton Mifflin.

Conant, J. 1947. *On understanding science.* New Haven: Yale University Press.

Copeland, M. 1958. *And mark an era: The story of the Harvard Business School.* Boston: Little, Brown & Company.

_____. 1931. The development of principles by the use of cases. In *The case method of instruction,* ed. C. E. Fraser. New York: McGraw-Hill.

Cruickshank, D. 1985. *Models for the preparation of America's teachers.* Bloomington, Ind.: Phi Delta Kappa Educational Foundation.

Dewey J. 1933. *How we think: A statement of the relation of reflexive thinking to the educative process.* Chicago: D.C. Heath.

_____. [1904] 1965. The relation of theory to practice. In *Teacher education in America: A documentary history,* ed. M. L. Borrowman. New York: Teachers College Press.

Doyle, W. 1990. Case methods in the education of teachers. *Teacher Education Quarterly* 17(1): 7-15.

Drucker, P. 1989. Managing knowledge and the knowledge worker. Lecture series. Claremont, Calif.

Elbow, P. 1986. *Embracing contraries*. New York: Oxford Press.

Elmore, R. 1989. How we teach is what we teach. *AAHE Bulletin* 41(8): 11-14.

Feiman-Nemser, S., and M. Buchmann. 1985. Pitfalls of experience in teacher preparation. *Teachers College Record* 87: 53-65.

Florio-Ruane, S. 1990. Creating your own case studies: A guide for early field experience. *Teacher Education Quarterly* 17(1): 29-43.

_____, and C. Clark. 1990. Using case studies to enrich field experiences. *Teacher Education Quarterly* 17(1): 17-29.

Fraser, C., ed. 1931. *The case method of instruction*. New York: McGraw-Hill.

Gage, N. 1978. *The scientific basis of the art of teaching*. New York: Teachers College Press.

Glazer, N. 1974. The schools of the minor professions. *Minerva* 12: 346-364.

Gragg, C. 1954. Because wisdom can't be told. In *The case method at the Harvard Business School*, ed. M. C. McNair. Boston: Harvard Business School Publishing Co.

Grant, C., and K. Zeichner. 1984. On becoming a reflective teacher. In *Preparing for reflective teaching*, ed. C. Grant. Boston: Allyn and Bacon.

Green, M. 1985. Public education and the public space. *The Kettering Review*, 5-60.

Greenwood, G., T. Good, and B. Siegel. 1971. *Problem situations in teaching*. New York: Harper & Row.

Greenwood, G., and F. Parkay. 1989. *Case studies for teacher decision making*. New York: Random House.

Grimmett, P., and G. Erickson, eds. 1988. *Reflection in teacher education*. New York: Teachers College Press.

Hansen, A. 1982. The case of the dethroned section leader teaching note and researcher perspective. In *Teaching and the case method*, ed. C. R. Christensen. Cambridge: Harvard Business School.

Holmes Group. 1986. *Tomorrow's teachers*. East Lansing, Mich.: Holmes Group.

_____. 1990. *Tomorrow's schools*. East Lansing, Mich.: Holmes Group.

Jackson, P. 1968. *Life in classrooms*. New York: Holt Reinhart & Winston.

Judge, H. 1982. *American graduate schools of education: A view from abroad*. New York: Ford Foundation.

Katz, M. 1966. From theory to survey in graduate schools of education. *Journal of Higher Education* 37: 325-34.

Kennedy, M. 1987. Inexact sciences: Professional education and the development of expertise. In *Review of Research in Education*, ed. E. Rothkopf. 14: 133-167. Washington, D.C.: American Educational Research Association.

_____. 1988. Establishing professional schools for teachers. In *Professional practice schools: Building a model*, ed. M. Levine. Washington, D.C.: American Federation of Teachers.

Kleinfeld, J. 1988. *Learning to think like a teacher*. Unpublished manuscript, Center for Cross-Cultural Studies Rural College, University of Alaska, Fairbanks.

Kliebard, H. 1982. Curriculum theory as metaphor. *Theory into practice* 21(1): 11-18.

Kohut, S., Jr., and D. Range. 1986. *Classroom discipline: Case studies and viewpoints*. 2nd ed. Washington, D.C.: National Education Association.

Kowalski, T., R. Weaver, and K. Henson. 1990. *Case studies on teaching*. New York: Longman.

Kuechle, D. 1989. *The Middletown school system* (videotape). Oakland, Calif.: American Association for Higher Education.

Lampert, M. 1985. How do teachers manage to teach? Perspectives on problems in practice. *Harvard Educational Review* 55(2): 178-194.

Lawrence, P. 1960. The preparation of case material. In *The case method of teaching human relations and administration*, ed. K. R. Andrews. Cambridge: Harvard University Press.

Leenders, M., and J. Erskine. 1978. *Case research: The case writing process*. 2nd ed. London, Canada: The University of Western Ontario School of Business Administration.

Light, R., and D. Pillemer. 1984. *Summing up: The science of reviewing research*. Cambridge: Harvard University Press.

Lyons, N. 1989, April. Teaching by the case method: One teacher's beginnings. *On Teaching and Learning*, Vol. 3, 28-35.

McNair, M., ed. 1954. *The case method at the Harvard Business School*. New York: McGraw-Hill.

Niland, P. 1954. The values and limitations of the case method. In *The case method at the Harvard Business School*, ed. M. McNair. New York: McGraw-Hill.

Pearson, A. 1989. *The teacher: theory and practice in teacher education*. New York: Routledge.

Pearson, H. 1951. The case method of instruction. *Harvard Education Review* 21(3): 175-192.

Pitts, R. 1975. Teaching undergraduates by the case method in non-case school. In *Business Policy Teaching Seminar* (November) at Harvard Graduate School of Business Administration, Boston.

Powell, A. 1980. *The uncertain profession*. Cambridge: Harvard University Press.

Richert, A. 1990. Case methods and teacher education: Using cases to teach teacher reflection. In *Inquiry-oriented teacher education*, eds. R. Tabachnick and K. Zeichner. London: Falmer Press.

_____. 1988. Teaching teachers to reflect: A consideration of program structure. Unpublished manuscript, Oakland, Calif.: Mills College.

Roethlisberger, F. 1977. *The elusive phenomena*. Cambridge: Harvard University Press.

Schon, D. 1983. *The reflective practitioner: How professionals think in action*. New York: Basic Books.

_____. 1987. *Educating the reflective practitioner*. San Francisco: Jossey-Bass.

Schwab, J. 1969. *College curriculum and student protest*. Chicago: University of Chicago Press.

Seldin, P. 1990. *The teaching portfolio: Theory and practice*. Paper presented at the annual meeting of the American Association for Higher Education, 1-4 April in San Francisco.

Shapiro, B. 1984. *Hints for case teaching*. Boston: Harvard Business School Publishing Division.

Shavelson, R. 1973. *The basic teaching skill: Decision making.* (R & D Memorandum No. 104). Stanford: Stanford University Center for Research and Development in Teaching.

Shulman, J., and J. Colbert. 1987. *The mentor teacher casebook.* Eugene, Ore.: ERIC Clearinghouse on Educational Management, Educational Research, and Development. Washington, D.C.: ERIC Clearinghouse on Teacher Education.

_____. 1988. *The intern teacher casebook.* Eugene, Ore.: ERIC Clearinghouse on Educational Management, Educational Research, and Development; Washington, D.C.: ERIC Clearinghouse on Teacher Education.

Shulman, L. 1986. Those who understand: Knowledge growth in teaching. *Educational Researcher* 15(2): 4-14.

_____. 1989. Cases as catalysts for cases. *Action in Teacher Education* 11(1): 44-52.

_____. 1989. A case for cases (cassette recording). Oakland, Calif.: American Association for Higher Education.

_____. (Speaker). 1989. A case for cases. Monterey, Calif.: Project 30.

_____. 1990. Reconnecting foundations. *Teachers College Record* 91(3): 300-310.

Shuman, R. 1989. *Classroom encounters: Problems, case studies, solutions.* Washington, D.C.: National Education Association.

Sperle, D. 1933. *The case method technique in professional training.* Teacher College Contributions to Education, No. 571. New York: Bureau of Publications, Teachers College, Columbia University.

Sykes, G. 1989. Learning to teach with cases. *Colloquy* 2(2): 7-13.

Tom, A. 1985. Inquiring into inquiry-oriented teacher education. *Journal of Teacher Education* 36(5): 35-44.

Towl, A. 1969. *To study administration by cases.* Boston: Harvard Business School, Division of Research.

Wagner, A. 1984. Conflicts in consciousness: Imperative cognitions can lead to knots in teacher thinking. In *Teacher thinking: A new perspective on (persistent problems in) education*, eds. R. Halkes and J. Olson. Heirewig, Holland: Sweets Publishing Service.

Welty, W. 1989. Discussion method teaching. *Change* July/August, 40-49.

_____, and R. Silverman. 1990. *Cases in teacher education*. New York: McGraw-Hill.

_____, and S. Lyon. 1989. "Proposal for a case book in teacher education." Unpublished paper.

Wilson, S. 1989. A case concerning content. Paper presented at the annual meeting of the American Educational Research Association, San Francisco.

Yin, R. 1989. *Case study research: Design and methods*. Newbury Park, Calif.: Sage Publications.

Zeichner, K., and D. Liston. 1987. Teaching student teachers to reflect. *Harvard Educational Review* 57: 23-48.

Zeichner, K., and R. Tabachnick. 1981. Are the effects of university teacher education 'washed out' by experience? *Journal of Teacher Education* 32(3): 7-11.

Zumwalt, K. 1989. Beginning professional teachers: The need for a curricular vision of teaching. In *Knowledge base for the beginning teacher*, ed. M. C. Reynolds. Oxford: Program Press.

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